



12/10/1998 11:09 AM

Breath Asure Chewing Gum-Combined Readings

Column ID	A	B	C	D
Column Label	Base-Placebo	1Month-Placebo	Base-Test	1Month-Test
Mean	2.28428571	2.27904762	2.1752381	1.4
Sample Size	21	21	21	21
SD	0.1988	0.2669	0.1911	0.2225
SEM	0.04338	0.05824	0.04171	0.04856
Median	2.260	2.270	2.170	1.400
Lower 95% CI	2.194	2.158	2.088	1.299
Upper 95% CI	2.375	2.401	2.262	1.501
Minimum	1.890	1.430	1.920	0.8800
Maximum	2.630	2.600	2.650	1.830

12/10/1998 11:03 AM

# Breath Asure Chewing Gum-Combined Readings-Total Sites

## Unpaired t test

Are the means of Base-Placebo and 1Month-Placebo equal?

Mean difference = -0.009524 (Mean of 1Month-Placebo minus mean of Base-Plac  
The 95% confidence interval of the difference: -0.1556 to 0.1366

t = 0.1317 with 40 degrees of freedom.

The two-tailed P value is 0.8959, considered not significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

F = 1.777

The P value is 0.1035.

This test suggests that the difference between the two SDs is not significant.

## Summary of Data

Parameter:	Base-Placebo	1Month-Placebo
Mean:	2.284	2.275
# of points:	21	21
Std deviation:	0.1988	0.2651
Std error:	0.04338	0.05784
Minimum:	1.890	1.430
Maximum:	2.630	2.600
Median:	2.260	2.270
Lower 95% CI:	2.194	2.154
Upper 95% CI:	2.375	2.395

\* \* \*

% PLaque RED. = - 0.4%

12/10/1998 11:03 AM

Breath Asure Chewing Gum-Combined Readings-Total Sites

Paired t test

Does the mean change from column Base-Placebo to 1Month-Placebo equal 0?

Mean difference = 0.009524 (Mean of paired differences)

The 95% confidence interval of the difference: -0.1353 to 0.1544

t = 0.1372 with 20 degrees of freedom.

The two-tailed P value is 0.8923, considered not significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.08091

The one-tailed P value is 0.3637, considered not significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears not to be effective.

The unpaired test may be more appropriate.

Summary of Data

Parameter:	Base-Placebo	1Month-Placebo	Difference
Mean:	2.284	2.275	0.009524
# of points:	21	21	21
Std deviation:	0.1988	0.2651	0.3182
Std error:	0.04338	0.05784	0.06944
Minimum:	1.890	1.430	-0.5100
Maximum:	2.630	2.600	0.7500
Median:	2.260	2.270	0.02000
Lower 95% CI:	2.194	2.154	-0.1353
Upper 95% CI:	2.375	2.395	0.1544

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12/10/1998 11:03 AM

Breath Asure Chewing Gum-Combined Readings-Total Sites

Unpaired t test

Are the means of Base-Test and 1Month-Test equal?

Mean difference = -0.7752 (Mean of 1Month-Test minus mean of Base-Test)  
The 95% confidence interval of the difference: -0.9046 to -0.6459

t = 12.112 with 40 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 1.355

The P value is 0.2513.

This test suggests that the difference between the two SDs is not significant.

Summary of Data

Parameter:	Base-Test	1Month-Test
Mean:	2.175	1.400
# of points:	21	21
Std deviation:	0.1911	0.2225
Std error:	0.04171	0.04856
Minimum:	1.920	0.8800
Maximum:	2.650	1.830
Median:	2.170	1.400
Lower 95% CI:	2.088	1.299
Upper 95% CI:	2.262	1.501

\* \* \*

% PLaque RED. = - 35.63%

12/10/1998 11:04 AM

Breath Asure Chewing Gum-Combined Readings-Total Sites

Paired t test

Does the mean change from column Base-Test to 1Month-Test equal 0?

Mean difference = 0.7752 (Mean of paired differences)

The 95% confidence interval of the difference: 0.6910 to 0.8595

t = 19.192 with 20 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.6087

The one-tailed P value is 0.0017, considered very significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears to be effective.

Summary of Data

Parameter:	Base-Test	1Month-Test	Difference
Mean:	2.175	1.400	0.7752
# of points:	21	21	21
Std deviation:	0.1911	0.2225	0.1851
Std error:	0.04171	0.04856	0.04039
Minimum:	1.920	0.8800	0.5500
Maximum:	2.650	1.830	1.310
Median:	2.170	1.400	0.7700
Lower 95% CI:	2.088	1.299	0.6910
Upper 95% CI:	2.262	1.501	0.8595

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12/10/1998 11:04 AM

Breath Asure Chewing Gum-Combined Readings-Total Sites

Unpaired t test

Are the means of Base-Placebo and Base-Test equal?

Mean difference = -0.1090 (Mean of Base-Test minus mean of Base-Placebo)

The 95% confidence interval of the difference: -0.2307 to 0.01257

t = 1.812 with 40 degrees of freedom.

The two-tailed P value is 0.0775, considered not quite significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

F = 1.082

The P value is 0.4308.

This test suggests that the difference between the two SDs is not significant.

Summary of Data

Parameter:	Base-Placebo	Base-Test
Mean:	2.284	2.175
# of points:	21	21
Std deviation:	0.1988	0.1911
Std error:	0.04338	0.04171
Minimum:	1.890	1.920
Maximum:	2.630	2.650
Median:	2.260	2.170
Lower 95% CI:	2.194	2.088
Upper 95% CI:	2.375	2.262

\* \* \*

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Breath Asure Chewing Gum 1st Leg(10/5/98-11/2/98)Total Sites

#	Base-Placebo	1Month-Placebo	Base-Test	1Month-Test
1			2.03	1.45
2			2.02	1.36
3			2.17	1.17
4			2.30	1.70
5			2.05	1.32
6			2.06	1.49
7			1.97	1.10
8			1.92	1.37
9			2.19	0.88
10			1.99	1.38
11	2.18	1.43		
12	2.18	2.08		
13	2.25	2.46		
14	2.26	2.24		
15	2.40	2.25		
16	2.54	2.18		
17	2.27	2.20		
18	2.28	2.02		
19	1.89	2.02		
20	2.63	2.27		
21	2.29	2.10		



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Breath Asure Chewing Gum 1st Leg(10/5/98-11/2/98)Total Sites

Column ID	A	B	C	D
Column Label	Base-Placebo	1Month-Placebo	Base-Test	1Month-Test
Mean	2.2881818182	2.1136363636	2.07	1.322
Sample Size	11	11	10	10
SD	0.1943	0.2602	0.1159	0.2267
SEM	0.05857	0.07845	0.03664	0.07168
Median	2.270	2.180	2.040	1.365
Lower 95% CI	2.158	1.939	1.987	1.160
Upper 95% CI	2.419	2.288	2.153	1.484
Minimum	1.890	1.430	1.920	0.8800
Maximum	2.630	2.460	2.300	1.700

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Breath Asure Chewing Gum 1st Leg(10/5/98-11/2/98)Total Sites

#### Unpaired t test

Are the means of Base-Placebo and 1Month-Placebo equal?

Mean difference = -0.1745 (Mean of 1Month-Placebo minus mean of Base-Placebo)  
The 95% confidence interval of the difference: -0.3788 to 0.02968

t = 1.783 with 20 degrees of freedom.

The two-tailed P value is 0.0898, considered not quite significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

F = 1.794

The P value is 0.1853.

This test suggests that the difference between the two SDs is not significant.

#### Summary of Data

Parameter:	Base-Placebo	1Month-Placebo
Mean:	2.288	2.114
# of points:	11	11
Std deviation:	0.1943	0.2602
Std error:	0.05857	0.07845
Minimum:	1.890	1.430
Maximum:	2.630	2.460
Median:	2.270	2.180
Lower 95% CI:	2.158	1.939
Upper 95% CI:	2.419	2.288

\* \* \*

% PLAQUE RED. = -7.6%

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Breath Asure Chewing Gum 1st Leg(10/5/98-11/2/98)Total Sites

Paired t test

Does the mean change from column Base-Placebo to 1Month-Placebo equal 0?

Mean difference = 0.1745 (Mean of paired differences)

The 95% confidence interval of the difference: -0.001795 to 0.3509

t = 2.205 with 10 degrees of freedom.

The two-tailed P value is 0.0520, considered not quite significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.3614

The one-tailed P value is 0.1374, considered not significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears not to be effective.

The unpaired test may be more appropriate.

Summary of Data

Parameter:	Base-Placebo	1Month-Placebo	Difference
Mean:	2.288	2.114	0.1745
# of points:	11	11	11
Std deviation:	0.1943	0.2602	0.2625
Std error:	0.05857	0.07845	0.07915
Minimum:	1.890	1.430	-0.2100
Maximum:	2.630	2.460	0.7500
Median:	2.270	2.180	0.1500
Lower 95% CI:	2.158	1.939	-0.001795
Upper 95% CI:	2.419	2.288	0.3509

\* \* \*

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Breath Asure Chewing Gum 1st Leg(10/5/98-11/2/98)Total Sites

Unpaired t test

Are the means of Base-Test and 1Month-Test equal?

Mean difference = -0.7480 (Mean of 1Month-Test minus mean of Base-Test)  
The 95% confidence interval of the difference: -0.9171 to -0.5789

t = 9.292 with 18 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 3.827

The P value is 0.0292.

This test suggests that the difference between the two SDs is significant. Since the t test assumes populations with equal SDs, you should consider transforming your data (reciprocal or log), selecting a nonparametric test, or selecting the alternate (Welch) t test.

Summary of Data

Parameter:	Base-Test	1Month-Test
Mean:	2.070	1.322
# of points:	10	10
Std deviation:	0.1159	0.2267
Std error:	0.03664	0.07168
Minimum:	1.920	0.8800
Maximum:	2.300	1.700
Median:	2.040	1.365
Lower 95% CI:	1.987	1.160
Upper 95% CI:	2.153	1.484

\* \* \*

% PLAQUE RED. = - 36.13%

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Breath Asure Chewing Gum 1st Leg(10/5/98-11/2/98)Total Sites

Paired t test

Does the mean change from column Base-Test to 1Month-Test equal 0?

Mean difference = 0.7480 (Mean of paired differences)

The 95% confidence interval of the difference: 0.5724 to 0.9236

t = 9.636 with 9 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.08632

The one-tailed P value is 0.4063, considered not significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears not to be effective.

The unpaired test may be more appropriate.

Summary of Data

Parameter:	Base-Test	1Month-Test	Difference
Mean:	2.070	1.322	0.7480
# of points:	10	10	10
Std deviation:	0.1159	0.2267	0.2455
Std error:	0.03664	0.07168	0.07763
Minimum:	1.920	0.8800	0.5500
Maximum:	2.300	1.700	1.310
Median:	2.040	1.365	0.6350
Lower 95% CI:	1.987	1.160	0.5724
Upper 95% CI:	2.153	1.484	0.9236

\* \* \*

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Breath Asure Chewing Gum 1st Leg(10/5/98-11/2/98)Total Sites

Unpaired t test

Are the means of Base-Placebo and Base-Test equal?

Mean difference = -0.2182 (Mean of Base-Test minus mean of Base-Placebo)  
The 95% confidence interval of the difference: -0.3663 to -0.07010

t = 3.084 with 19 degrees of freedom.

The two-tailed P value is 0.0061, considered very significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 2.811

The P value is 0.0676.

This test suggests that the difference between the two SDs is not quite significant.

Summary of Data

Parameter:	Base-Placebo	Base-Test
Mean:	2.288	2.070
# of points:	11	10
Std deviation:	0.1943	0.1159
Std error:	0.05857	0.03664
Minimum:	1.890	1.920
Maximum:	2.630	2.300
Median:	2.270	2.040
Lower 95% CI:	2.158	1.987
Upper 95% CI:	2.419	2.153

\* \* \*

**TABULATION of MEANS**

	<u>BASELINE</u>	<u>4-WEEKS</u>	<u>Statistical Significance Compared to Baseline</u>
<b><u>TOTAL PLAQUE INDEX</u></b>			
Placebo Gum	2.284	2.279	NS
Test Gum	2.175	1.400	p<0.0001
<b><u>PROXIMAL SURFACES PLAQUE INDEX</u></b>			
Placebo Gum	2.370	2.353	NS
Test Gum	2.272	1.467	p<0.0001
<b><u>SMOOTH SURFACES PLAQUE INDEX</u></b>			
Placebo Gum	2.107	2.118	NS
Test Gum	2.980	1.260	p<0.0001
<b><u>POSTERIOR SURFACES PLAQUE INDEX</u></b>			
Placebo Gum	2.398	2.378	NS
Test Gum	2.299	1.522	p<0.0001

Breakout of data by crossover groups follow, where:

10/5/98 = Initial Baseline (Day 1)

11/2/98 = End of First Crossover groups of placebo and test gums

11/9/98 = End of Washout Period

12/2/98 = End of Second Crossover groups of placebo and test gums

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Breath Asure Chewing Gum-Combined Readings-Total Sites

#	Base-Placebo	1Month-Placebo	Base-Test	1Month-Test
1	2.47	2.53	2.03	1.45
2	2.18	2.46	2.02	1.36
3	2.17	2.54	2.17	1.17
4	2.58	2.37	2.30	1.70
5	2.61	2.23	2.05	1.32
6	2.13	2.51	2.06	1.49
7	2.09	2.60	1.97	1.10
8	2.01	2.37	1.92	1.37
9	2.17	2.34	2.19	0.88
10	2.39	2.57	1.99	1.38
11	2.18	1.43	1.98	1.35
12	2.18	2.08	2.34	1.40
13	2.25	2.46	2.34	1.61
14	2.26	2.24	2.35	1.58
15	2.40	2.25	2.27	1.69
16	2.54	2.18	2.12	1.26
17	2.27	2.20	2.38	1.52
18	2.28	2.02	2.30	1.40
19	1.89	2.02	1.93	1.11
20	2.63	2.27	2.65	1.83
21	2.29	2.10	2.32	1.43



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Breath Asure Chewing Gum 2nd Leg(11/9/98-12/4/98)Total Sites

#	Base-Placebo	1Month-Placebo	Base-Test	1Month-Test
1	2.47	2.53		
2	2.18	2.46		
3	2.17	2.54		
4	2.58	2.37		
5	2.61	2.23		
6	2.13	2.51		
7	2.09	2.60		
8	2.01	2.37		
9	2.17	2.34		
10	2.39	2.57		
11			1.98	1.35
12			2.34	1.40
13			2.34	1.61
14			2.35	1.58
15			2.27	1.69
16			2.12	1.26
17			2.38	1.52
18			2.30	1.40
19			1.93	1.11
20			2.65	1.83
21			2.32	1.43

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Breath Asure Chewing Gum 2nd Leg(11/9/98-12/4/98)Total Sites

Column ID	A	B	C	D
Column Label	Base-Placebo	1Month-Placebo	Base-Test	1Month-Test
Mean	2.28	2.452	2.2709090909	1.4709090909
Sample Size	10	10	11	11
SD	0.2142	0.1194	0.1996	0.2029
SEM	0.06772	0.03777	0.06017	0.06118
Median	2.175	2.485	2.320	1.430
Lower 95% CI	2.127	2.367	2.137	1.335
Upper 95% CI	2.433	2.537	2.405	1.607
Minimum	2.010	2.230	1.930	1.110
Maximum	2.610	2.600	2.650	1.830

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Breath Asure Chewing Gum 2nd Leg(11/9/98-12/4/98)Total Sites

Unpaired t test

Are the means of Base-Placebo and 1Month-Placebo equal?

Mean difference = 0.1720 (Mean of 1Month-Placebo minus mean of Base-Placebo)  
The 95% confidence interval of the difference: 0.005674 to 0.3383

Welch's approximate t = 2.218 with 14 degrees of freedom.  
The two-tailed P value is 0.0436, considered significant.  
This test does not assume equal variances.

#### Summary of Data

Parameter:	Base-Placebo	1Month-Placebo
Mean:	2.280	2.452
# of points:	10	10
Std deviation:	0.2142	0.1194
Std error:	0.06772	0.03777
Minimum:	2.010	2.230
Maximum:	2.610	2.600
Median:	2.175	2.485
Lower 95% CI:	2.127	2.367
Upper 95% CI:	2.433	2.537

\* \* \*

% PLAQUE RED. = + 7.5%

12/10/1998 10:48 AM

Breath Asure Chewing Gum 2nd Leg(11/9/98-12/4/98)Total Sites

Paired t test

Does the mean change from column Base-Placebo to 1Month-Placebo equal 0?

Mean difference = -0.1720 (Mean of paired differences)

The 95% confidence interval of the difference: -0.3725 to 0.02848

t = 1.941 with 9 degrees of freedom.

The two-tailed P value is 0.0842, considered not quite significant.

Test: Was the pairing effective?

Correlation coefficient (r) = -0.3601

The negative correlation coefficient indicates that the pairing or matching was ineffective.

Summary of Data

Parameter:	Base-Placebo	1Month-Placebo	Difference
Mean:	2.280	2.452	-0.1720
# of points:	10	10	10
Std deviation:	0.2142	0.1194	0.2803
Std error:	0.06772	0.03777	0.08863
Minimum:	2.010	2.230	-0.5100
Maximum:	2.610	2.600	0.3800
Median:	2.175	2.485	-0.2300
Lower 95% CI:	2.127	2.367	-0.3725
Upper 95% CI:	2.433	2.537	0.02848

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12/10/1998 10:49 AM

Breath Asure Chewing Gum 2nd Leg(11/9/98-12/4/98)Total Sites

Unpaired t test

Are the means of Base-Test and 1Month-Test equal?

Mean difference = -0.8000 (Mean of 1Month-Test minus mean of Base-Test)  
The 95% confidence interval of the difference: -0.9790 to -0.6210

t = 9.323 with 20 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

F = 1.034

The P value is 0.4797.

This test suggests that the difference between the two SDs is not significant.

Summary of Data

Parameter:	Base-Test	1Month-Test
Mean:	2.271	1.471
# of points:	11	11
Std deviation:	0.1996	0.2029
Std error:	0.06017	0.06118
Minimum:	1.930	1.110
Maximum:	2.650	1.830
Median:	2.320	1.430
Lower 95% CI:	2.137	1.335
Upper 95% CI:	2.405	1.607

\* \* \*

% P. Aque REP. = - 35.22%

12/10/1998 10:49 AM

Breath Asure Chewing Gum 2nd Leg(11/9/98-12/4/98)Total Sites

Paired t test

Does the mean change from column Base-Test to 1Month-Test equal 0?

Mean difference = 0.8000 (Mean of paired differences)

The 95% confidence interval of the difference: 0.7238 to 0.8762

t = 23.379 with 10 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.8411

The one-tailed P value is 0.0006, considered extremely significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears to be effective.

Summary of Data

Parameter:	Base-Test	1Month-Test	Difference
Mean:	2.271	1.471	0.8000
# of points:	11	11	11
Std deviation:	0.1996	0.2029	0.1135
Std error:	0.06017	0.06118	0.03422
Minimum:	1.930	1.110	0.5800
Maximum:	2.650	1.830	0.9400
Median:	2.320	1.430	0.8200
Lower 95% CI:	2.137	1.335	0.7238
Upper 95% CI:	2.405	1.607	0.8762

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12/10/1998 10:50 AM

Breath Asure Chewing Gum 2nd Leg(11/9/98-12/4/98)Total Sites

Unpaired t test

Are the means of Base-Placebo and Base-Test equal?

Mean difference = -0.009091 (Mean of Base-Test minus mean of Base-Placebo)  
The 95% confidence interval of the difference: -0.1980 to 0.1799

t = 0.1007 with 19 degrees of freedom.

The two-tailed P value is 0.9208, considered not significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 1.152

The P value is 0.4117.

This test suggests that the difference between the two SDs is not significant.

Summary of Data

Parameter:	Base-Placebo	Base-Test
Mean:	2.280	2.271
# of points:	10	11
Std deviation:	0.2142	0.1996
Std error:	0.06772	0.06017
Minimum:	2.010	1.930
Maximum:	2.610	2.650
Median:	2.175	2.320
Lower 95% CI:	2.127	2.137
Upper 95% CI:	2.433	2.405

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Proximal Surfaces-Combined Scores

#	Base-Placebo	1Month-Placebo	Base-Test	1Month-Test
1	2.54	2.69	2.05	1.53
2	2.25	2.54	2.13	1.40
3	2.25	2.70	2.34	1.16
4	2.64	2.51	2.46	1.82
5	2.62	2.46	2.19	1.44
6	2.23	2.60	2.27	1.54
7	2.15	2.62	2.19	1.17
8	2.02	2.45	2.00	1.45
9	2.25	2.39	2.29	0.90
10	2.48	2.66	2.09	1.44
11	2.29	1.48	2.00	1.45
12	2.38	2.16	2.38	1.50
13	2.42	2.47	2.38	1.70
14	2.36	2.25	2.38	1.64
15	2.58	2.35	2.40	1.74
16	2.55	2.18	2.18	1.30
17	2.33	2.22	2.45	1.56
18	2.45	2.04	2.39	1.50
19	2.04	2.18	2.11	1.24
20	2.64	2.30	2.72	1.90
21	2.31	2.18	2.33	1.44



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Proximal Surfaces-Combined Scores

Column ID	A	B	C	D
Column Label	Base-Placebo	1Month-Placebo	Base-Test	1Month-Test
Mean	2.3704761905	2.3538095238	2.2728571429	1.4676190476
Sample Size	21	21	21	21
SD	0.1856	0.2806	0.1789	0.2325
SEM	0.04051	0.06122	0.03904	0.05075
Median	2.360	2.390	2.290	1.450
Lower 95% CI	2.286	2.226	2.191	1.362
Upper 95% CI	2.455	2.482	2.354	1.573
Minimum	2.020	1.480	2.000	0.9000
Maximum	2.640	2.700	2.720	1.900

% Plaque Red. =

- 0.8%

- 35.68%

12/10/1998 01:43 PM

# Proximal Surfaces-Combined Scores

## Unpaired t test

Are the means of Base-Placebo and 1Month-Placebo equal?

Mean difference = -0.01667 (Mean of 1Month-Placebo minus mean of Base-Placebo)

The 95% confidence interval of the difference: -0.1650 to 0.1317

t = 0.2270 with 40 degrees of freedom.

The two-tailed P value is 0.8216, considered not significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

F = 2.285

The P value is 0.0359.

This test suggests that the difference between the two SDs is significant. Since the t test assumes populations with equal SDs, you should consider transforming your data (reciprocal or log), selecting a nonparametric test, or selecting the alternate (Welch) t test.

## Summary of Data

Parameter:	Base-Placebo	1Month-Placebo
Mean:	2.370	2.354
# of points:	21	21
Std deviation:	0.1856	0.2806
Std error:	0.04051	0.06122
Minimum:	2.020	1.480
Maximum:	2.640	2.700
Median:	2.360	2.390
Lower 95% CI:	2.286	2.226
Upper 95% CI:	2.455	2.482

\* \* \*

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# Proximal Surfaces-Combined Scores

## Paired t test

Does the mean change from column Base-Placebo to 1Month-Placebo equal 0?

Mean difference = 0.01667 (Mean of paired differences)

The 95% confidence interval of the difference: -0.1337 to 0.1670

t = 0.2312 with 20 degrees of freedom.

The two-tailed P value is 0.8195, considered not significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.03923

The one-tailed P value is 0.4330, considered not significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears not to be effective.

The unpaired test may be more appropriate.

## Summary of Data

Parameter:	Base-Placebo	1Month-Placebo	Difference
Mean:	2.370	2.354	0.01667
# of points:	21	21	21
Std deviation:	0.1856	0.2806	0.3303
Std error:	0.04051	0.06122	0.07207
Minimum:	2.020	1.480	-0.4700
Maximum:	2.640	2.700	0.8100
Median:	2.360	2.390	0.1100
Lower 95% CI:	2.286	2.226	-0.1337
Upper 95% CI:	2.455	2.482	0.1670

\* \* \*

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# Proximal Surfaces-Combined Scores

## Unpaired t test

Are the means of Base-Test and 1Month-Test equal?

Mean difference = -0.8052 (Mean of 1Month-Test minus mean of Base-Test)  
The 95% confidence interval of the difference: -0.9346 to -0.6758

t = 12.577 with 40 degrees of freedom.  
The two-tailed P value is < 0.0001, considered extremely significant.

Test: Are the standard deviations equal?  
The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 1.690  
The P value is 0.1246.  
This test suggests that the difference between the two SDs is not significant.

## Summary of Data

Parameter:	Base-Test	1Month-Test
Mean:	2.273	1.468
# of points:	21	21
Std deviation:	0.1789	0.2325
Std error:	0.03904	0.05075
Minimum:	2.000	0.9000
Maximum:	2.720	1.900
Median:	2.290	1.450
Lower 95% CI:	2.191	1.362
Upper 95% CI:	2.354	1.573

\* \* \*

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# Proximal Surfaces-Combined Scores

## Paired t test

Does the mean change from column Base-Test to 1Month-Test equal 0?

Mean difference = 0.8052 (Mean of paired differences)

The 95% confidence interval of the difference: 0.7095 to 0.9009

t = 17.551 with 20 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.5033

The one-tailed P value is 0.0100, considered significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears to be effective.

## Summary of Data

Parameter:	Base-Test	1Month-Test	Difference
Mean:	2.273	1.468	0.8052
# of points:	21	21	21
Std deviation:	0.1789	0.2325	0.2103
Std error:	0.03904	0.05075	0.04588
Minimum:	2.000	0.9000	0.5200
Maximum:	2.720	1.900	1.390
Median:	2.290	1.450	0.7500
Lower 95% CI:	2.191	1.362	0.7095
Upper 95% CI:	2.354	1.573	0.9009

\* \* \*

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# Proximal Surfaces-Combined Scores

## Unpaired t test

Are the means of Base-Placebo and Base-Test equal?

Mean difference = -0.09762 (Mean of Base-Test minus mean of Base-Placebo)  
The 95% confidence interval of the difference: -0.2113 to 0.01607

t = 1.735 with 40 degrees of freedom.  
The two-tailed P value is 0.0904, considered not quite significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 1.077

The P value is 0.4352.

This test suggests that the difference between the two SDs is not significant.

## Summary of Data

Parameter:	Base-Placebo	Base-Test
Mean:	2.370	2.273
# of points:	21	21
Std deviation:	0.1856	0.1789
Std error:	0.04051	0.03904
Minimum:	2.020	2.000
Maximum:	2.640	2.720
Median:	2.360	2.290
Lower 95% CI:	2.286	2.191
Upper 95% CI:	2.455	2.354

\* \* \*

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Smooth Surfaces- Combined Score

#	Base-Placebo	1Month-Placebo	Base- Test	1Month- Test
1	2.33	2.22	2.00	1.27
2	2.04	2.30	1.79	1.27
3	2.02	2.21	1.85	1.17
4	2.47	2.08	1.97	1.47
5	2.59	1.79	1.77	1.09
6	1.92	2.31	1.65	1.38
7	1.98	2.57	1.52	0.96
8	2.00	2.21	1.77	1.21
9	2.02	2.25	2.00	0.85
10	2.21	2.40	1.77	1.25
11	1.98	1.32	1.93	1.14
12	1.79	1.92	2.27	1.19
13	1.91	2.45	2.27	1.41
14	2.04	2.23	2.29	1.48
15	2.04	2.04	2.00	1.58
16	2.50	2.18	2.00	1.16
17	2.15	2.15	2.22	1.42
18	1.93	1.98	2.12	1.21
19	1.48	1.71	1.57	0.86
20	2.60	2.22	2.52	1.70
21	2.25	1.94	2.31	1.40

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Smooth Surfaces- Combined Score

Column ID	A	B	C	D
Column Label	Base-Placebo	1Month-Placebo	Base- Test	1Month- Test
Mean	2.1071428571	2.1180952381	1.9804761905	1.2604761905
Sample Size	21	21	21	21
SD	0.2753	0.2779	0.2665	0.2191
SEM	0.06008	0.06065	0.05815	0.04782
Median	2.040	2.210	2.000	1.250
Lower 95% CI	1.982	1.992	1.859	1.161
Upper 95% CI	2.232	2.245	2.102	1.360
Minimum	1.480	1.320	1.520	0.8500
Maximum	2.600	2.570	2.520	1.700

%Placebo Red.:-

+0.4%

-36.36%



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Smooth Surfaces- Combined Score

Unpaired t test

Are the means of Base-Placebo and 1Month-Placebo equal?

Mean difference = 0.01095 (Mean of 1Month-Placebo minus mean of Base-Placebo)

The 95% confidence interval of the difference: -0.1616 to 0.1835

t = 0.1283 with 40 degrees of freedom.

The two-tailed P value is 0.8986, considered not significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

F = 1.019

The P value is 0.4835.

This test suggests that the difference between the two SDs is not significant.

Summary of Data

Parameter:	Base-Placebo	1Month-Placebo
Mean:	2.107	2.118
# of points:	21	21
Std deviation:	0.2753	0.2779
Std error:	0.06008	0.06065
Minimum:	1.480	1.320
Maximum:	2.600	2.570
Median:	2.040	2.210
Lower 95% CI:	1.982	1.992
Upper 95% CI:	2.232	2.245

\* \* \*

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# Smooth Surfaces- Combined Score

## Paired t test

Does the mean change from column Base-Placebo to 1Month-Placebo equal 0?

Mean difference = -0.01095 (Mean of paired differences)

The 95% confidence interval of the difference: -0.1787 to 0.1568

t = 0.1362 with 20 degrees of freedom.

The two-tailed P value is 0.8931, considered not significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.1124

The one-tailed P value is 0.3139, considered not significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears not to be effective.

The unpaired test may be more appropriate.

## Summary of Data

Parameter:	Base-Placebo	1Month-Placebo	Difference
Mean:	2.107	2.118	-0.01095
# of points:	21	21	21
Std deviation:	0.2753	0.2779	0.3686
Std error:	0.06008	0.06065	0.08043
Minimum:	1.480	1.320	-0.5900
Maximum:	2.600	2.570	0.8000
Median:	2.040	2.210	-0.1300
Lower 95% CI:	1.982	1.992	-0.1787
Upper 95% CI:	2.232	2.245	0.1568

\* \* \*

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# Smooth Surfaces- Combined Score

## Unpaired t test

Are the means of Base- Test and 1Month- Test equal?

Mean difference = -0.7200 (Mean of 1Month- Test minus mean of Base- Test)  
The 95% confidence interval of the difference: -0.8721 to -0.5679

t = 9.564 with 40 degrees of freedom.  
The two-tailed P value is < 0.0001, considered extremely significant.

Test: Are the standard deviations equal?  
The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 1.479  
The P value is 0.1945.  
This test suggests that the difference between the two SDs is not significant.

## Summary of Data

Parameter:	Base- Test	1Month- Test
Mean:	1.980	1.260
# of points:	21	21
Std deviation:	0.2665	0.2191
Std error:	0.05815	0.04782
Minimum:	1.520	0.8500
Maximum:	2.520	1.700
Median:	2.000	1.250
Lower 95% CI:	1.859	1.161
Upper 95% CI:	2.102	1.360

\* \* \*

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Smooth Surfaces- Combined Score

Paired t test

Does the mean change from column Base- Test to 1Month- Test equal 0?

Mean difference = 0.7200 (Mean of paired differences)

The 95% confidence interval of the difference: 0.6221 to 0.8179

t = 15.337 with 20 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.6229

The one-tailed P value is 0.0013, considered very significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears to be effective.

Summary of Data

Parameter:	Base- Test	1Month- Test	Difference
Mean:	1.980	1.260	0.7200
# of points:	21	21	21
Std deviation:	0.2665	0.2191	0.2151
Std error:	0.05815	0.04782	0.04694
Minimum:	1.520	0.8500	0.2700
Maximum:	2.520	1.700	1.150
Median:	2.000	1.250	0.7300
Lower 95% CI:	1.859	1.161	0.6221
Upper 95% CI:	2.102	1.360	0.8179

\* \* \*

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Smooth Surfaces- Combined Score

Unpaired t test

Are the means of Base-Placebo and Base- Test equal?

Mean difference = -0.1267 (Mean of Base- Test minus mean of Base-Placebo)  
The 95% confidence interval of the difference: -0.2956 to 0.04232

t = 1.515 with 40 degrees of freedom.  
The two-tailed P value is 0.1377, considered not significant.

Test: Are the standard deviations equal?  
The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 1.068  
The P value is 0.4425.  
This test suggests that the difference between the two SDs is not significant.

Summary of Data

Parameter:	Base-Placebo	Base- Test
Mean:	2.107	1.980
# of points:	21	21
Std deviation:	0.2753	0.2665
Std error:	0.06008	0.05815
Minimum:	1.480	1.520
Maximum:	2.600	2.520
Median:	2.040	2.000
Lower 95% CI:	1.982	1.859
Upper 95% CI:	2.232	2.102

\* \* \*

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Posterior Surfaces- Combined Scores

#	Base-Placebo	1Month-Placebo	Base-Test	1Month- Test
1	2.92	2.88	2.48	1.69
2	2.23	2.57	2.10	1.44
3	2.22	2.60	2.28	1.26
4	2.72	2.39	2.28	1.74
5	2.69	2.24	2.10	1.43
6	2.38	2.76	2.28	1.68
7	2.19	2.82	2.08	1.33
8	2.03	2.46	2.06	1.42
9	2.33	2.33	2.17	1.01
10	2.47	2.64	1.96	1.43
11	2.03	1.56	2.02	1.43
12	2.33	2.11	2.44	1.57
13	2.30	2.68	2.72	1.82
14	2.26	2.24	2.29	1.61
15	2.67	2.33	2.54	1.68
16	2.63	2.31	2.22	1.38
17	2.33	2.29	2.58	1.73
18	2.37	2.11	2.50	1.59
19	2.00	2.13	2.02	1.27
20	2.82	2.32	2.78	2.03
21	2.45	2.18	2.38	1.43

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Posterior Surfaces- Combined Scores

Column ID	A	B	C	D
Column Label	Base-Placebo	1Month-Placebo	Base-Test	1Month- Test
Mean	2.3985714286	2.3785714286	2.299047619	1.5223809524
Sample Size	21	21	21	21
SD	0.2599	0.3015	0.2371	0.2272
SEM	0.05672	0.06579	0.05174	0.04959
Median	2.330	2.330	2.280	1.440
Lower 95% CI	2.280	2.241	2.191	1.419
Upper 95% CI	2.517	2.516	2.407	1.626
Minimum	2.000	1.560	1.960	1.010
Maximum	2.920	2.880	2.780	2.030

% Plaque Red. =

-0.8%

- 33.62%

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## Posterior Surfaces- Combined Scores

### Unpaired t test

Are the means of Base-Placebo and 1Month-Placebo equal?

Mean difference = -0.02000 (Mean of 1Month-Placebo minus mean of Base-Placebo)

The 95% confidence interval of the difference: -0.1956 to 0.1556

t = 0.2302 with 40 degrees of freedom.

The two-tailed P value is 0.8191, considered not significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

F = 1.345

The P value is 0.2565.

This test suggests that the difference between the two SDs is not significant.

### Summary of Data

Parameter:	Base-Placebo	1Month-Placebo
Mean:	2.399	2.379
# of points:	21	21
Std deviation:	0.2599	0.3015
Std error:	0.05672	0.06579
Minimum:	2.000	1.560
Maximum:	2.920	2.880
Median:	2.330	2.330
Lower 95% CI:	2.280	2.241
Upper 95% CI:	2.517	2.516

\* \* \*



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# Posterior Surfaces- Combined Scores

## Paired t test

Does the mean change from column Base-Placebo to 1Month-Placebo equal 0?

Mean difference = 0.02000 (Mean of paired differences)

The 95% confidence interval of the difference: -0.1364 to 0.1764

t = 0.2668 with 20 degrees of freedom.

The two-tailed P value is 0.7924, considered not significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.2579

The one-tailed P value is 0.1295, considered not significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears not to be effective.

The unpaired test may be more appropriate.

## Summary of Data

Parameter:	Base-Placebo	1Month-Placebo	Difference
Mean:	2.399	2.379	0.02000
# of points:	21	21	21
Std deviation:	0.2599	0.3015	0.3436
Std error:	0.05672	0.06579	0.07497
Minimum:	2.000	1.560	-0.6300
Maximum:	2.920	2.880	0.5000
Median:	2.330	2.330	0.04000
Lower 95% CI:	2.280	2.241	-0.1364
Upper 95% CI:	2.517	2.516	0.1764

\* \* \*

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## Posterior Surfaces- Combined Scores

### Unpaired t test

Are the means of Base-Test and 1Month- Test equal?

Mean difference = -0.7767 (Mean of 1Month- Test minus mean of Base-Test)  
The 95% confidence interval of the difference: -0.9215 to -0.6318

t = 10.838 with 40 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 1.088

The P value is 0.4257.

This test suggests that the difference between the two SDs is not significant.

### Summary of Data

Parameter:	Base-Test	1Month- Test
Mean:	2.299	1.522
# of points:	21	21
Std deviation:	0.2371	0.2272
Std error:	0.05174	0.04959
Minimum:	1.960	1.010
Maximum:	2.780	2.030
Median:	2.280	1.440
Lower 95% CI:	2.191	1.419
Upper 95% CI:	2.407	1.626

\* \* \*

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# Posterior Surfaces- Combined Scores

## Paired t test

Does the mean change from column Base-Test to 1Month- Test equal 0?

Mean difference = 0.7767 (Mean of paired differences)

The 95% confidence interval of the difference: 0.7024 to 0.8509

t = 21.813 with 20 degrees of freedom.

The two-tailed P value is < 0.0001, considered extremely significant.

Test: Was the pairing effective?

Correlation coefficient (r) = 0.7538

The one-tailed P value is < 0.0001, considered extremely significant.

Effective pairing results in a significant correlation between the columns.

With these data, the pairing (or matching) appears to be effective.

## Summary of Data

Parameter:	Base-Test	1Month- Test	Difference
Mean:	2.299	1.522	0.7767
# of points:	21	21	21
Std deviation:	0.2371	0.2272	0.1632
Std error:	0.05174	0.04959	0.03561
Minimum:	1.960	1.010	0.5300
Maximum:	2.780	2.030	1.160
Median:	2.280	1.440	0.7500
Lower 95% CI:	2.191	1.419	0.7024
Upper 95% CI:	2.407	1.626	0.8509

\* \* \*

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Posterior Surfaces- Combined Scores

Unpaired t test

Are the means of Base-Placebo and Base-Test equal?

Mean difference = -0.09952 (Mean of Base-Test minus mean of Base-Placebo)  
The 95% confidence interval of the difference: -0.2547 to 0.05563

t = 1.296 with 40 degrees of freedom.

The two-tailed P value is 0.2023, considered not significant.

Test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.  
The following calculations test that assumption.

F = 1.202

The P value is 0.3424.

This test suggests that the difference between the two SDs is not significant.

Summary of Data

Parameter:	Base-Placebo	Base-Test
Mean:	2.399	2.299
# of points:	21	21
Std deviation:	0.2599	0.2371
Std error:	0.05672	0.05174
Minimum:	2.000	1.960
Maximum:	2.920	2.780
Median:	2.330	2.280
Lower 95% CI:	2.280	2.191
Upper 95% CI:	2.517	2.407

\* \* \*